Amendments to the Claims:

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1 (Previously presented): A fuel cell system which performs power generation by means of an electrochemical reaction of a fuel gas and an oxidant gas, comprising:

fuel cells each of which comprises an anode which contacts the fuel gas, a cathode which contacts the oxidant gas, and an electrolyte membrane held between the anode and cathode;

a sensor which detects a temperature of fuel cells;

a moisture-adjusted gas generating mechanism which generates moisture-adjusted gas at an arbitrary humidity; and

a programmable controller programmed to:

determine a target humidity based on a temperature of the fuel cells after power generation is halted;

control the moisture-adjusted gas generating mechanism such that the humidity of the moisture-adjusted gas matches the target humidity; and

control the moisture-adjusted gas generating mechanism to supply the moisture-adjusted gas adjusted to the target humidity to at least one of the anode and cathode after power generation in the fuel cells is halted,

wherein the target humidity is a humidity with which water vapor in the moisture-adjusted gas does not condense when supplied to at least one of the anode and cathode after power generation in the fuel cells is halted.

2 (Original): The fuel cell system as defined in Claim 1, wherein the moisture-adjusted gas comprises one of a humidified fuel gas and a humidified oxidant gas.

3 (Previously presented): The fuel cell system as defined in Claim 1, wherein the moisture-adjusted gas comprises a humidified fuel gas and a humidified oxidant gas, the gas generating mechanism comprises a first humidifier which humidifies the fuel gas to generate the humidified fuel gas and a second humidifier which humidifies the oxidant gas to generate the humidified oxidant gas; and the controller is further programmed to control the moisture-adjusted gas generating mechanism such that after power generation in the fuel cells is halted, fuel gas adjusted to the target humidity is supplied to the anode by the first humidifier, and oxidant gas adjusted to the target humidity is supplied to the cathode by the second humidifier.

4 (Previously presented): The fuel cell system as defined in Claim 1, wherein the controller is further programmed to set the target humidity higher as the temperature of the fuel cells increases.

5 (Previously presented): The fuel cell system as defined in Claim 1, wherein the controller is further programmed to control the moisture-adjusted gas generating mechanism such that the supply of moisture-adjusted gas is halted when a predetermined period of time elapses following the commencement of moisture-adjusted gas supply by the gas generating mechanism.

6 (Currently amended): [[The]] A fuel cell system ~~as defined in Claim 1, wherein the fuel cell system further comprises a sensor which detects a wet condition of the~~ which performs power generation by means of an electrochemical reaction of a fuel gas and an oxidant gas, comprising:

fuel cells each of which comprises an anode which contacts the fuel gas, a cathode which contacts the oxidant gas, and an electrolyte membrane held between the anode and cathode;

a sensor which detects a temperature of fuel cells;

a moisture-adjusted gas generating mechanism which generates moisture-adjusted gas at an arbitrary humidity;

a sensor which detects a wet condition of the fuel cells; and

a programmable controller programmed to:

set a target humidity based on the temperature of the fuel cells~~, and the controller is further programmed to set~~ and the wet condition of the fuel cells after power generation is halted, the target humidity being a humidity with which water vapor in the moisture-adjusted gas does not condense when supplied to at least one of the anode and cathode after power generation in the fuel cells is halted and set to be higher when the wet condition of the fuel cells is drier than a predetermined wet region than when the wet condition of the fuel cells is wetter than the predetermined [[wet]] region;

control the moisture-adjusted gas generating mechanism such that the humidity of the moisture-adjusted gas matches the target humidity with which water vapor in the moisture-adjusted gas does not condense when supplied to at least one of the anode and cathode after power generation in the fuel cells is halted; and

control the moisture-adjusted gas generating mechanism to supply the moisture-adjusted gas adjusted to the target humidity to at least one of the anode and cathode after power generation in the fuel cells is halted.

7 (Previously presented): The fuel cell system as defined in Claim 6, wherein the controller is further programmed to modify the target humidity according to the wet condition of

the fuel cells, which varies during the supply of moisture-adjusted gas by the gas generating mechanism, and to control the gas generating mechanism such that the humidity of the moisture-adjusted gas matches the modified target humidity.

8 (Previously presented): The fuel cell system as defined in Claim 7, wherein the controller is further programmed to control the moisture-adjusted gas generating mechanism such that when the temperature and the wet condition of the fuel cells reach a predetermined state of equilibrium, the supply of moisture-adjusted gas is halted.

9 (Previously presented): The fuel cell system as defined in Claim 6, wherein the sensor which detects the wet condition of the fuel cells is constituted by a sensor which measures electrical resistance between the anode and cathode.

10 (Previously presented): The fuel cell system as defined in Claim 1, wherein the fuel cell system comprises a fuel cell stack comprising a stacked body of a plurality of the fuel cells, a moisture-adjusted gas inlet for supplying the moisture-adjusted gas from the moisture-adjusted gas generating mechanism to each of the fuel cells, and a moisture-adjusted gas outlet for discharging from the fuel cell stack the moisture-adjusted gas which has discharged from each of the fuel cells, a first sensor which detects the wet condition of the fuel cell stack in the vicinity of the inlet and a second sensor which detects the wet condition of the fuel cell stack in the vicinity of the outlet, and the controller is further programmed to set the target humidity of the moisture-adjusted gas on the basis of the wet condition of the fuel cell stack in the vicinity of the inlet, and to determine when to halt the supply of moisture-adjusted gas on the basis of the wet condition of the fuel cell stack in the vicinity of the outlet.

11 (Previously presented): The fuel cell system as defined in Claim 1, wherein the fuel cell system further comprises a sensor which detects an outside air temperature, and the

controller is further programmed to control the moisture-adjusted gas generating mechanism such that, when the outside air temperature after power generation in the fuel cells is halted deviates from a predetermined temperature region, the supply of the moisture-adjusted gas is halted.

12 (Previously presented): The fuel cell system as defined in Claim 1, wherein the target humidity is set between fifteen percent and ninety-five percent.

13 (Previously presented): The fuel cell system as defined in Claim 1, wherein the moisture-adjusted gas generating mechanism comprises a mechanism which supplies humidified moisture-adjusted gas to the anode after power generation in the fuel cells is halted, and a mechanism which supplies humidified moisture-adjusted gas to the cathode after power generation in the fuel cells is halted, and the controller is further programmed to set the target humidity of the moisture-adjusted gas that is supplied to the anode after power generation in the fuel cells is halted higher than the target humidity of the moisture-adjusted gas that is supplied to the cathode after power generation in the fuel cells is halted.

14 (Previously presented): A fuel cell system which performs power generation by means of an electrochemical reaction of a fuel gas and an oxidant gas, comprising:

fuel cells each of which comprises an anode which contacts the fuel gas, a cathode which contacts the oxidant gas, and an electrolyte membrane held between the anode and cathode;

means for determining a temperature of the fuel cells;

means for generating moisture-adjusted gas at an arbitrary humidity;

means for determining a target humidity based on the temperature of the fuel cells after power generation is halted;

means for controlling the moisture-adjusted gas generating means such that the humidity of the moisture-adjusted gas matches the target humidity; and

means for controlling the moisture-adjusted gas generating means to supply the moisture-adjusted gas adjusted to the target humidity to at least one of the anode and cathode after power generation in the fuel cells is halted,

wherein the target humidity is a humidity with which water vapor in the moisture-adjusted gas does not condense when supplied to at least one of the anode and cathode after power generation in the fuel cells is halted.

15 (Previously Presented): A moisture control method of fuel cell system which performs power generation by means of an electrochemical reaction of a fuel gas and an oxidant gas, and comprises fuel cells each of which comprises an anode which contacts the fuel gas, a cathode which contacts the oxidant gas, and an electrolyte membrane held between the anode and cathode, and a moisture-adjusted gas generating mechanism which generates moisture-adjusted gas at an arbitrary humidity; the method comprising:

determining a temperature of the fuel cells;

determining a target humidity based on a temperature of the fuel cells after power generation is halted;

controlling the moisture-adjusted gas generating mechanism such that the humidity of the moisture-adjusted gas matches the target humidity; and

controlling the gas generating mechanism to supply the moisture-adjusted gas adjusted to the target humidity to at least one of the anode and cathode after power generation in the fuel cells is halted,

wherein the target humidity is a humidity with which water vapor in the moisture-adjusted gas does not condense when supplied to at least one of the anode and cathode after power generation in the fuel cells is halted.

16 (Previously presented): The fuel cell system as defined in Claim 1, wherein the target humidity corresponds to a vapor pressure of the moisture-adjusted gas which is lower than a saturated vapor pressure thereof.

17 (Previously presented): The fuel cell system as defined in Claim 1, wherein the target humidity is a humidity with which a moisture content of the moisture-adjusted gas and the moisture inside the electrolyte membrane enter a state of equilibrium.